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THE HARVARD SCHOOL OF PUBLIC HEALTH

55 SHATTUCK STREET, BOSTON, MASS.

INCLUDING

COURSES OF INSTRUCTION FOR 1941-42

PUBLISHED BY HARVARD UNIVERSITY

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These publications include the reports of the president and of the treasurer; the general catalogue issue; the announcements of the College and the several professional schools of the University; the courses of instruction; the pamphlets of the several departments; and the like.

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HARVARD SCHOOL OF PUBLIC HEALTH

ANNOUNCEMENT

OF THE

HARVARD SCHOOL OF PUBLIC HEALTH

55 SHATTUCK STREET, BOSTON, MASS.

OF

HARVARD UNIVERSITY

1941

PUBLISHED BY HARVARD UNIVERSITY

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CALENDAR

1941

Sept. 19, Friday.	Registration of students.
Sept. 22, Monday.	ACADEMIC YEAR BEGINS.
Sept. 25, Thursday.	Payment of the first instalment of the tuition fee and one-half the medical and infirmary fee is required on this date.
Oct. 13, Monday.	Columbus Day: a holiday.
Nov. 11, Tuesday.	Armistice Day: a holiday.
Nov. 27, Thursday.	Thanksgiving Day: a holiday.
Nov. 29, Saturday.	Payment of the second instalment of the tuition fee is required on or before this date.

RECESS FROM DEC. 23, 1941, TO JAN. 2, 1942, INCLUSIVE

1942

Jan. 3, Saturday.	Last day for receiving theses for February degrees.
Jan. 19, Monday.	Mid-year examinations begin.
Jan. 26, Monday.	SECOND HALF-YEAR BEGINS.
Jan. 30, Friday.	Payment of the third instalment of the tuition fee and one-half the medical and infirmary fee is required on or before this date.
Feb. 23, Monday.	Washington's Birthday: a holiday.

RECESS FROM MARCH 29 TO APRIL 5, INCLUSIVE

April 20, Monday.	Patriots' Day: a holiday.
April 30, Thursday.	Payment of the fourth instalment of the tuition fee is required on or before this date.
May 1, Friday.	Last day for receiving theses for June degrees.
May 25, Monday.	Second semester examinations begin.
May 30, Saturday.	Memorial Day: a holiday.
June 1, Mon. and *June 2, Tues.*	Final Comprehensive Examinations.
June 18, Thursday.	COMMENCEMENT.

SUMMER VACATION, FROM COMMENCEMENT TO SEPTEMBER 27, INCLUSIVE

In order to insure equal periods of time for the various courses, the following division of the academic year has been arbitrarily made:

Mon. Sept. 22–Sat. Oct. 18	FIRST MONTH
Mon. Oct. 20–Sat. Nov. 15	SECOND MONTH
Mon. Nov. 17–Sat. Dec. 13	THIRD MONTH
Mon. Dec. 15–Sat. Jan. 24	FOURTH MONTH [1]
Mon. Jan. 26–Sat. Feb. 21	FIFTH MONTH
Mon. Feb. 23–Sat. Mar. 21	SIXTH MONTH
Mon. Mar. 23–Sat. April 25	SEVENTH MONTH [2]
Mon. April 27–Sat. May 30	EIGHTH MONTH

[1] Christmas recess from Dec. 23, 1941, to Jan. 2, 1942, inclusive.
[2] Spring recess from March 29 to April 5, 1942, inclusive.

THE PRESIDENT AND FELLOWS OF HARVARD COLLEGE

This Board is commonly known as the CORPORATION.

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JAMES BRYANT CONANT, A.B., Ph.D., LL.D., S.D., L.H.D., D.C.L.
17 Quincy St., Cambridge

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522 Fifth Ave., New York, N.Y.

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WILLIAM HENRY CLAFLIN, JR., A.B. 24 Milk St., Boston

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25 Massachusetts Hall, Cambridge

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1943

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% The News Leader, Richmond, Va.

GEORGE PEABODY GARDNER, A.B.
10 Post Office Sq., Boston

CHARLES POLETTI, A.B., LL.B. State Capitol, Albany, N.Y.

1944

GEORGE RUBLEE, A.B., LL.B., LL.D.
701 Union Trust Bldg., Washington, D.C.

LANGDON PARKER MARVIN, A.M., LL.B.
48 Wall St., New York, N. Y.

* The term expires, in each case, on Commencement Day of the year indicated.

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8 Arlington St., Boston

HENRY PARKMAN, Jr., A.M. 82 Devonshire St., Boston

LLOYD KIRKHAM GARRISON, A.B., LL.B.
University of Wisconsin, Madison, Wis.

1945

JOHN LORD O'BRIAN, A.B., LL.B., LL.D.
37 Church St., Buffalo, N. Y.

DAVID CHEEVER, A.B., M.D. 193 Marlborough St., Boston

ROBERT WOODS BLISS, A.B., LL.D.
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1946

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312 Green Bay Rd., Winnetka, Ill.

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Time, Inc., Rockefeller Center, N. Y.

SECRETARY OF THE BOARD OF OVERSEERS, *Emeritus*

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50 Congress St., Boston

SECRETARY OF THE BOARD OF OVERSEERS

JEROME DAVIS GREENE, A.M., LL.D.
25 Massachusetts Hall, Cambridge

ADMINISTRATIVE OFFICERS

President: James B. Conant, A.B., Ph.D., LL.D., S.D., L.H.D., D.C.L.
Office, 5 University Hall, Cambridge.

Dean: Cecil K. Drinker, S.B., M.D., S.D.
Office, School of Public Health, 55 Shattuck Street, Boston.

Assistant Dean: Edward G. Huber, A.B., M.D., Dr.P.H.
Office, School of Public Health, 55 Shattuck Street, Boston.

Secretary: Mrs. Margaret G. Barnaby, A.B.
Office, School of Public Health, 55 Shattuck Street, Boston.

Physician to Students: Eugene C. Eppinger, M.D.
Office, Room 103, Building A, Harvard Medical School, 25 Shattuck Street, Boston.

ADMINISTRATIVE BOARD

President James B. Conant, A.B., Ph.D., LL.D., S.D., L.H.D., D.C.L. (*ex officio*).

Cecil K. Drinker, S.B., M.D., S.D., *Dean*, and *Professor of Physiology.*

Edwin B. Wilson, A.B., Ph.D., *Professor of Vital Statistics.*

Edward G. Huber, A.B., M.D., Dr.P.H., *Assistant Dean* and *Assistant Professor of Public Health Practice.*

John F. Enders, A.M., Ph.D., *Assistant Professor of Bacteriology and Immunology.*

Constantin P. Yaglou, A.B., S.B., M.M.E., *Associate Professor of Industrial Hygiene.*

COMMITTEE ON ADMISSIONS

Donald L. Augustine, Chairman; Cecil K. Drinker, Edward G. Huber, Philip Drinker.

COMMITTEE ON EXAMINATIONS

Edwin B. Wilson, Chairman; Cecil K. Drinker, Edward G. Huber, Leroy D. Fothergill, Gordon M. Fair.

THE HARVARD SCHOOL OF PUBLIC HEALTH

HISTORICAL STATEMENT

The Harvard School of Public Health first gave instruction to students in the academic year 1922–23. For many years activity in public health had been rapidly increasing in Harvard University. The influence of the University upon public health, through the pioneering and long-continued efforts of Dr. Henry P. Walcott, for many years senior member of the Harvard Corporation, was important and far-reaching. Courses in the various departments had been gradually developed to meet the need for men trained to conserve public health. The field of public health is so broad that it is not strange that this School did not find its origin in any one department. The records show certain important steps in what has been essentially a gradual development. In 1909 a department of Preventive Medicine and Hygiene was established in the Medical School. The degree of Doctor of Public Health was first conferred in 1911. In this same year a department of Sanitary Engineering was inaugurated in the Engineering School. In 1913 a department of Tropical Medicine was formed. In 1918 a Division of Industrial Hygiene, with clinical and laboratory facilities, was organized in the Harvard Medical School.

Besides these activities which were directly concerned with the training of men for public health work, research was being carried on in the regular departments of the Harvard Medical School in Bacteriology, Pathology, Parasitology, Physiology, Biochemistry, and others, which had a less direct but very real bearing on the development of the science of public health. On analysis it appeared that there were many activities under the various faculties of Harvard University, besides those of Medicine and Engineering, that had some bearing on public health. Under the Faculty of Arts and Sciences there were many courses, such as those in Physics, Chemistry, Zoölogy, Social Ethics, etc., which formed in certain cases important parts of the training of individuals for work in public health. In addition, there had been established in 1914, under the Faculty of Arts and Sciences, a department of Hygiene, which undertook the supervision of the health of the students in its broadest aspect. This department had collected much data of considerable value in public health.

In 1913 the "Harvard-Technology" School of Public Health was organized. It was under the joint management of Harvard University

and the Massachusetts Institute of Technology. This pioneer School continued to operate until the fall of 1922, when it was superseded by the new Harvard School of Public Health. However, the Massachusetts Institute of Technology continues to coöperate with the Harvard School of Public Health and also offers courses in public health through its department of Biology and Public Health.

As a result of these activities, the University found itself in possession of a substantial nucleus upon which to erect a new School of Public Health of larger scope, and in 1921 received from the Rockefeller Foundation a generous endowment for this purpose, known as the Henry P. Walcott Fund of Harvard University. This gift made it possible: first, to correlate and to enlarge the various departments already existing, such as Preventive Medicine and Hygiene, Bacteriology, Sanitary Engineering, Tropical Medicine, Parasitology, and Industrial Hygiene; second, to create a department of Vital Statistics and to develop new special fields of instruction, such as Public Health Administration, Child Hygiene, Mental Hygiene, Communicable Diseases, and Ventilation and Illumination; and lastly, to purchase a building, standing on land adjacent to that occupied by the Medical School, in which to house the administration and the various groups concerned with the work of public health.

GENERAL STATEMENT

Purpose

The practice of public health is founded upon a broad knowledge of Public Health Practice, Epidemiology, Sanitation and Vital Statistics. All other subjects constitute specialities within these four fields. It is the object of the School to provide the scientific groundwork which underlies efficient health administration, together with some personal acquaintance of modern public health procedures of the best type. To this end lectures, field surveys, hospital exercises and laboratory work are offered by members of the Faculty and by special instructors actively engaged in public health work. Students may thus prepare themselves for careers in teaching, administrative, field or laboratory positions, while special opportunity is offered to those who desire to contribute to knowledge through research or field investigations.

Facilities

The School of Public Health is located at 55 Shattuck Street, Boston. The building, formerly occupied by the Infants' Hospital, stands on land adjacent to that occupied by the Medical School and in close proximity

to the Peter Bent Brigham Hospital, the Children's Hospital, the Collis P. Huntington Memorial Hospital, and the Lying-in Hospital. The Antitoxin and Vaccine Laboratory of the Massachusetts Department of Public Health is within a comparatively short distance of the School. The Boston Psychopathic Hospital is also within a few blocks. Thus the School of Public Health, though a definite entity, is an integral part of a great medical center with splendid facilities for development of the teaching of the theory and practice of public health. Certain members of the Faculty of the School are also members of the Faculty of Medicine, and the Library, laboratory facilities and hospitals are utilized by both Schools to great mutual advantage. In Cambridge the graduate departments of the University offer opportunities for work in certain fields of special interest to public health students. For example, students may elect courses in sociology, business administration, the theory of government, common law, sanitary engineering and other subjects.

Various types of well organized public health activities lie within a short distance of the School. These include health departments of cities that are residential in character, small cities with a single large industry, and organized rural health districts. Close affiliation is maintained between the School and the State Department of Public Health, thus assuring students an opportunity not only to observe but actually to participate in state health department activities under competent direction. The Boston City Health Department has a fully developed system of Health Units, giving opportunity to study localized health organization and the coöperative activities of voluntary and official health and welfare agencies. The Health Department of the City of Newton, whose health officer is on the teaching staff of the School, has been developed as a special training ground for students of local public health administration in all its phases.

Hospitals and clinics affiliated with the School of Public Health offer facilities for training in child hygiene, tuberculosis control, treatment of contagious diseases of childhood, care of mental defectives, rehabilitation of crippled children, correction of dental defects, and other types of activity which relate directly to the promotion of health and social welfare. Opportunity is also offered for training in hospital administration under competent direction.

Boston being the center of a great industrial metropolitan area, students have opportunity to observe at first hand all the public health problems that large industrial populations must face, while the medical and technical personnel of selected industrial establishments offer training in industrial hygiene.

Non-official health organizations such as the Boston Health League, the Community Health Association with its large visiting nurse pro-

gram, the Nutrition Clinic of the Boston Dispensary, the Judge Baker Foundation for the study of delinquency, the Massachusetts Tuberculosis Association, the School of Public Health Nursing and the School for Social Service of Simmons College, as well as other types of organizations actively engaged in public health or allied activities, offer opportunities to students in the School.

ADMISSION REQUIREMENTS

Candidates for admission to the School must satisfy the Committee on Admissions of their academic fitness. The mere record of courses completed is not sufficient evidence of the fitness of a prospective student. The Committee may require further evidence of present ability to utilize the training received and to profit by the courses administered by the School. The right is reserved to reject any applicant.

All inquiries and communications regarding admission should be addressed to the Secretary, Harvard School of Public Health, 55 Shattuck Street, Boston, Mass.

DEGREES

Doctor of Public Health

The degree of Doctor of Public Health is not obtained by the mere completion of a group of courses and submission of a thesis reporting routine observations. It is granted on evidence of real scholarship in the fundamental aspects of public health and presentation of a thesis which displays independent ability and originality in a special field. Two years of work at the School are usually necessary to obtain the degree of Doctor of Public Health. In instances where previous work has been exceptionally thorough a single year may suffice, but no assurance can be given of this, since the preparation of an acceptable thesis may readily require more time than was anticipated.

Prerequisites: Candidates for this degree must present satisfactory evidence of having received the M.D. degree, or its equivalent, from an approved medical school.

Residence: At least one academic year must be spent in residence at this University.

Candidacy for the degree: To qualify as a candidate the student is required to pass with honors a comprehensive examination, which may be written or oral, in the subject matter of the courses which form the curriculum for the Master of Public Health degree. This examination may be taken without reference to the length of residence as a student.

Thesis: Upon admission to candidacy the student must present a program of independent investigation to the Administrative Board. The

results of this investigation will form the basis of the thesis which must be presented as one of the final requirements for graduation.

Two copies of the thesis must be received by the Dean's Office on or before the first day of January for degrees conferred in February, and on or before the first day of May for degrees conferred in June. Each copy must be accompanied by a summary not exceeding 1200 words in length, which shall indicate clearly the purposes, methods and results of the investigation.

Final examination: After acceptance of the thesis, the candidate will be called before the Faculty for an oral examination upon the thesis and upon those branches of science which are of especial importance for the field of the thesis.

Master of Public Health

Prerequisites: Candidates for this degree must present satisfactory evidence of having received the M.D. degree from an approved medical school. Qualified graduates from approved dental or veterinary schools may be admitted as candidates for this degree at the discretion of the Committee on Admissions.

Residence: At least one academic year must be spent in residence at this University.

Programs of study: All candidates for this degree are required to elect a sufficient number of courses to make a total of twenty credit units each semester. Due consideration will be given to the respective needs of the candidate, but the program he desires to elect must meet the approval of the Administrative Board. The courses offered and the standard credit units for each course are given below; the credit units may be altered by the Administrative Board to meet the exigencies of special situations, and other courses in the University may be substituted for special reasons.

First Semester

	Credit Units
Child Health A	4
Syphilis and Gonorrhea	3
Vital Statistics A1	5
Bacteriology A	3
Sanitation A	4
Nutrition A	3½
Control of Cancer	½
Technique of Medical Writing	½
Industrial Hygiene B (Laboratory)	3
Bacteriology 32	2
Child Health B	2½
Term Paper	1½

Second Semester

	Credit Units
Public Health Practice A	4
Communicable Diseases A	3
Ecology A	3
Industrial Hygiene A	4
Epidemiology A	4
Vital Statistics A2	4
Parasitology and Tropical Medicine A	4
Public Speaking and Radio Technique	3
Industrial Hygiene B (Laboratory)	2
Sanitation B (Laboratory)	2
Bacteriology 34 (Viruses)	1
Epidemiology B	2
Applied Immunology 33A	1
Child Health C	3
Public Health Practice B	2
Physician and the Community	½

Term paper: Each student who is a candidate for the Master of Public Health degree is required to prepare a term paper in his major field of interest, which shall be approximately forty-five hundred words in length. The subject of the paper is to be selected before the Christmas Recess, with the help of the head of the department in which the student's special field of interest lies, and the completed paper is to be handed in before the Spring Recess.

Final examination: This is a comprehensive, coördinating examination designed to test the student's knowledge and judgment in the public health field, with special reference to administration, epidemiology, sanitation and statistics.

Master or Doctor of Science in Engineering

Graduates of engineering colleges or scientific schools of recognized standing may be admitted to the Graduate School of Engineering as candidates for the Master or Doctor of Science degree conferred by the Faculty of Engineering. For such an individual the sanitary engineering or industrial hygiene aspects of public health would be the field of concentration.

For further information write The Secretary, Graduate School of Engineering, Pierce Hall, Cambridge, Mass.

Doctor of Philosophy in Hygiene

Information relative to prerequisites, courses, fees, etc., may be secured from the Secretary, Division of Medical Sciences, Harvard Medical School, 25 Shattuck Street, Boston, Mass.

CERTIFICATE IN PUBLIC HEALTH

Prerequisites: Candidates for the Certificate must be graduates in arts or in science from an approved college and present evidence of such training in the medical sciences as is ordinarily provided during the first two years of medical school curriculum. At the discretion of the Committee on Admissions, however, certain courses ordinarily required for admission may be waived, in view of special fitness or training in other fields.

Residence: At least one academic year must be spent in residence in this University.

Programs of study: The Certificate in Public Health is granted upon satisfactory completion of an approved program of courses and candidates for this Certificate are required to take the final general examination.

Students who are interested in, and properly qualified for, work in a particular field, such as Bacteriology, Vital Statistics, etc., may specialize in that field. Upon completion of honor work in this major subject such students may be granted a Certificate of Public Health in that subject. All such candidates must be approved by the head of the department in which the work is to be done. The final examination is not required of this group.

SPECIAL STUDENTS

Those who do not meet the academic requirements for admission as candidates for degrees or the certificate, may be admitted to certain courses and programs of study at the discretion of the head of each department and subject to conditions specified by him with the approval of the Dean.

Students unable to spend a full academic year at the School may come for individual courses if their preparation for the course is approved by the head of the department.

As the capacity of the School is limited, the number of special students who can be admitted is dependent on the number of applicants with a medical degree who are accepted for the regular course. Therefore, it is not possible to know how many special students can be received until late in the summer.

FEES AND EXPENSES

The fees are: For medical and infirmary fee, $20 for each year; for instruction (including laboratory charges except breakage, damage, and loss of apparatus), $400 for each year.

Tuition will be charged on term bills in four instalments, as follows:

One-fourth on the term bill issued at registration and payable on or before September 24th, 1941. Students who register late must pay their bills on or before the second business day following registration.

One-fourth on the term bill issued November 12th and payable November 29th.

One-fourth on the term bill issued January 12th, 1942, and payable January 30th.

One-fourth on the term bill issued April 13th and payable April 30th.

The term bills are sent to the student at his University address unless the Bursar is requested in writing to send them elsewhere.

Students desiring to take single courses may do so at the rate of $65 for one full course, payable in advance.

The medical and infirmary fee is payable in two equal installments on the September and January term bills.

Dining hall charges for those who eat at the Medical School Dormitory will be added to the term bills.

Bills for miscellaneous charges will be rendered at the time the indebtedness is incurred.

All indebtedness to the University must be paid by candidates for degrees at least one day before Commencement.

Students who are candidates for degrees in the middle of the academic year must pay all dues to the University at least one day before the day upon which the degrees are to be voted.

A student who leaves during the year is charged to the end of the tuition period in which he leaves, provided before that time he gives the Dean notice in writing of his withdrawal; otherwise he is charged to the end of the academic year or to the end of the tuition period in which such notice is given.

When a student's connection with the University is severed, all charges against him must be paid at once.

Any student whose indebtedness to the University remains unpaid on the date fixed for payment is deprived of the privileges of the University until he is reinstated. Reinstatement is obtained only by consent of the Dean of the Department in which the student is enrolled, after payment of all indebtedness and a reinstatement fee of $10. *Students will be held responsible for the payment of fees until they have notified the Dean, in writing, of their intentions to withdraw from the School.*

The following regulations applicable to students who leave the University by reason of the present national emergency have been adopted:

1. A student in good standing who leaves the University for military service in the national emergency, or for service accepted by the University as auxiliary thereto, under conditions which make it impossible for him to complete his half-year's work will be entitled to a refund of fees for the quarter in which he leaves.

2. A student in good standing who leaves the University for military or such auxiliary service in the national emergency and returns within a period of three years to complete his work may reënter the University in either half-year and be credited with any unrefunded fees paid in the year in which he left on account of a period for which he did not receive academic credit.

Students owning microscopes are advised to bring them with them. The School has a limited number of microscopes which may be rented upon application to the Dean's Office, but offers no guarantee that it will keep on hand a sufficient number of such instruments to furnish one for each student.

BONDS

Upon entrance to the School every student is required to file with the Bursar a bond in the sum of $500 as security for payment of University bills. The bond must be signed by two bondsmen, both of whom must be citizens of the United States, or by a surety company duly qualified to do business in Massachusetts. No officer or student of the University will be accepted as a bondsman and in no case will more than one parent be accepted. In lieu of the bond a student may deposit with the Bursar five hundred dollars in United States government coupon bonds, or five hundred dollars in cash, which will bear no interest. Blank forms of bonds may be obtained at the Dean's Office or from the Bursar.

STUDENT HEALTH SERVICE

Each full-time student will be charged annually a Medical and Infirmary fee of $20. Part-time students working at the rate of substantially half-time or less and living at home may be exempted from this requirement upon recommendation of the Dean.

In return for payment of this fee the School provides a physician to students who will give medical advice and treatment without charge during the school year. He is available for consultation by students at his office in Building A, Harvard Medical School, from 8 to 9 o'clock, and from 3.30 to 5.30 o'clock daily except Saturdays and holidays.

He may also be seen at other times by appointment and at any time in case of emergency. The fee also covers a total of two weeks ward care in one of the teaching hospitals of the Medical School if necessary or, in case of minor illness, to bed, board, and ordinary nursing care in the Stillman Infirmary for a period not exceeding two weeks in any one academic year. Medical attendance, private rooms, and special nursing care will be an extra charge. In addition, each student is entitled to all the medical and other services that have been organized under the Student Health Service plan of the University.

Any illness necessitating absence from work should be reported to the Student Health Office by the student, or by an attending physician.

Under the auspices of the Department of Medicine of the Harvard Medical School each student will be required to undergo a complete medical examination shortly after admission to the School. Evidence of having been satisfactorily vaccinated is required for entrance to Harvard University and a form of certification for this purpose is sent to each student who is accepted for admission. For information regarding the Stillman Infirmary see the University Catalogue.

LIBRARIES

The joint Library of the School of Public Health and the Harvard Medical School is on the second floor of the Administration Building of the Medical School. It is open in term time from 9 A.M. until 10 P.M. on week days, from 9 A.M. until 5 P.M. on Saturdays, and from 2 P.M. until 6 P.M. on Sundays. During the summer vacation it is open week days from 9 A.M. until 10 P.M. and on Saturdays from 9 A.M. until 12 M., but is closed on Sundays throughout the day. There are at present 71,229 volumes, 191,240 pamphlets, and 578 current periodicals on file in this library.

Students also have the privilege of using the College Library in Cambridge, as well as the various departmental libraries belonging to the University, in all of which there are 3,945,318 volumes and pamphlets.

The Boston Public Library is open to students who are residents of Boston, and students not residents of Boston who have filed a bond at the Bursar's Office.

The Boston Medical Library, No. 8 The Fenway, contains about 188,000 bound volumes, 134,000 pamphlets, and 620 current periodicals on file. For those who desire to consult medical literature, this very valuable library is open on week days from 9.30 A.M. to 6 P.M., and on Mondays and Wednesdays until 10 P.M.

HARVARD INFANTILE PARALYSIS COMMISSION

The Commission was appointed by the Corporation September 25, 1916. Its activities include the treatment of patients with infantile paralysis and studies on the cause, prevention, and management of the disease. The Commission also acts in an advisory capacity to the Massachusetts State Department of Health and coöperates with the Vermont Board of Health. It is supported entirely by public subscription and receives no financial support from Harvard University.

The members of the Commission are: John E. Gordon, M.D., *Chairman*, Cecil K. Drinker, M.D., *Acting Chairman*, Kenneth D. Blackfan, M.D., C. Sidney Burwell, M.D., Frank R. Ober, M.D., Alton S. Pope, M.D., George B. Wislocki, M.D., John F. Enders, Ph.D.

The Advisory Committee is: Roger Pierce, *Chairman*, Richard C. Curtis, *Treasurer*, Frederick Ayer, Hermann F. Clarke, James J. Minot, Jr., and Miss Madeleine Harding, *Secretary*.

Director of Clinics, William T. Green, M.D.

Director of Field and Laboratory Studies, W. Lloyd Aycock, M.D.

ANNOUNCEMENT OF COURSES

BACTERIOLOGY

J. Howard Mueller, S.M., Ph.D., *Associate Professor of Bacteriology and Immunology.*

John F. Enders, A.M., Ph.D., *Assistant Professor of Bacteriology and Immunology.*

LeRoy D. Fothergill, A.B., M.D., *Silas Arnold Houghton Assistant Professor of Bacteriology and Immunology.*

William A. Hinton, S.B., M.D., *Instructor in Bacteriology and Immunology* and *Chief of Wassermann Laboratory.*

Emanuel B. Schoenbach, S.B., M.D., *Instructor in Bacteriology.*

Leah R. Seidman, A.B., Sc.D., *Instructor in Bacteriology.*

The Department of Bacteriology and Immunology of the Harvard School of Public Health, in addition to a fundamental course in bacteriology, offers a voluntary course in immunity which consists of seminars and laboratory exercises.

Provision is made for individual work upon problems of serum production, standardization, etc., under Dr. Elliott Robinson of the Massachusetts Antitoxin and Vaccine Laboratory.

Advanced work and opportunities for investigation are available, admission to this type of work depending upon the fitness of the applicant.

Bacteriology A

Lectures and laboratory work. *Mondays, Wednesdays, Fridays, 2–5 P.M. and Saturdays, 10–11 A.M., First and Second months.*

Credit 3 units.

This course, designed for the student of Public Health, deals with the bacteriology of the pathogenic microörganisms in its applications to diagnosis, investigation and prevention of communicable disease.

The bacteriology of milk, water, sewage and shell fish will be given special consideration. Clinics will be held at the Children's Hospital at which patients having infections with the organisms being studied at the moment will be demonstrated.

Bacteriology 32

Seminars and laboratory work. *Tuesdays, 2–5 P.M., and Thursdays, 2.30–5.30 P.M., Second and Third months.*

Credit 2 units.

Immunity. — The course will consist of seminars in which the basis of discussion will consist of some of the most important older and more recent immunological literature. The student will be expected to take an active part in reviewing this material. In the laboratory exercises, which will occupy two-thirds of the period, the student will carry out the fundamental immunological procedures such as the preparation of antisera and the evaluation of such sera by means of a variety of immunological reactions.

The course will be limited to 16. Applications for admission should be received by October 6, 1941.

Applied Immunology 33a

Lectures and laboratory work. *Mondays, Wednesdays, and Fridays, 2–5 P.M., at State Antitoxin Laboratory, during Eighth month.* Dr. Robinson. For details see page *22*.

This curriculum of bacteriological courses taken in conjunction with epidemiology, vital statistics, sanitation and medical zoölogy, represents a thorough training in that branch of public health which deals with the communicable diseases.

Bacteriology 34

Viruses. *Tuesdays, 2–5 P.M. and Thursdays, 2.30–5 P.M.*, February 3 to 26. Dr. Enders.

Credit 1 unit.

This course will consist of eight exercises in which an opportunity will be offered to acquire some of the fundamental techniques employed in the study of virus agents pathogenic for man and the lower animals. In addition there will be presented reviews of the recent, significant contributions to knowledge of these agents.

Unless a minimum of five applications shall be received by November 1, 1941, the course will not be given. Enrollment for the laboratory exercises will be limited to fifteen.

Serological Diagnosis of Syphilis

Time and credit to be arranged. Dr. Hinton.

A short course which deals with the details of methods of the serological diagnosis of syphilis.

Research in Bacteriology

Special advanced courses will be offered in Immunology and the Technique of Serum Study, and will be open to a limited number of students.

Opportunity will be given for properly qualified students to pursue research work along varied lines.

APPLIED IMMUNOLOGY — SERUMS AND VACCINES

Elliott S. A. Robinson, M.D., Ph.D., *Assistant Professor of Applied Immunology* and *Director of the Division of Biologic Laboratories, State Department of Public Health.*

Arthur P. Long, M.D., Dr. P.H., *Instructor in Applied Immunology* and *Assistant Director of the Division of Biologic Laboratories, State Department of Public Health.*

Geoffrey Edsall, M.D., *Instructor in Applied Immunology and Assistant Director of the Division of Biologic Laboratories, State Department of Public Health.*

Floyd D. Hager, S.M., Ph.D., *Instructor in Applied Immunology.*

Leo Rane, Ph D., *Assistant in Applied Immunology.*

La Verne A. Barnes, S.M., Ph.D., *Assistant in Applied Immunology.*

Applied Immunology 33a

Lectures and laboratory work. *Mondays, Wednesdays, and Fridays, 2–5 P.M., at State Antitoxin Laboratory, during Eighth month.* Dr. Robinson.

Credit 1 unit.

In this course the application of immunological theory to the prevention and treatment of disease, as evidenced in the manufacture of serums, vaccines, and related products, is developed by lectures, discussions, and laboratory demonstrations. The content of the course is dependent upon the training and interests of the students.

Facilities are also offered for study of and training in the manufacture of biologic products or for original work in problems related to these processes, at times to be arranged individually.

COMPARATIVE PATHOLOGY AND TROPICAL MEDICINE

Ernest E. Tyzzer, Ph.B., A.M., M.D., S.D., *George Fabyan Professor of Comparative Pathology* and *Professor of Tropical Medicine.*

A. Watson Sellards, A.M., M.D., *Richard Pearson Strong Associate Professor of Tropical Medicine.*

George C. Shattuck, M.D., A.M., *Clinical Professor of Tropical Medicine.*

Donald L. Augustine, S.D., *Associate Professor of Comparative Pathology and Tropical Medicine.*

Joseph C. Bequaert, Ph.D., *Assistant Professor of Comparative Pathology and Tropical Medicine.*

Quentin M. Geiman, S.M., Ph.D., *Instructor in Comparative Pathology and Tropical Medicine.*

David Weinman, M.D., *Instructor in Comparative Pathology and Tropical Medicine.*

Albert A. Hornor, A.B., M.D., *Assistant in Tropical Medicine.*

Alexander H. Rice, A.M., M.D., *Lecturer on Diseases of South America.*

Byron L. Bennett, *Research Assistant.*

Parasitology and Tropical Medicine A

Lectures and laboratory work. *Tuesdays, 2–5 P.M. and Thursdays, 2.30–5 P.M., Fifth, Sixth and Seventh months.* Dr. Tyzzer and associates.

Credit 4 units.

The course consists of lectures, laboratory exercises and demonstrations dealing with helminths, protozoa and arthropods of importance to public health, with the object of training the student in the identification of the more important parasites, and study of their life histories with reference to prevention and control. The agency of insects and other arthropods in the transmission of disease will receive special consideration.

Students with special backgrounds and interests may undertake special or advanced work along with, or in lieu of, the regular course. Investigations of members of the Department have provided material, including cultures and other living material, in a number of fields. Among the subjects available for special work are: trichinosis, with special reference to skin and precipitin tests; hookworms; ascariasis; amebiasis, methods of diagnosis and cultivation; trypanosomiasis; leishmaniasis, bartonellosis and rickettsial diseases; rearing and dissection of various insects such as mosquitoes, bedbugs, fleas, sandflies; identification of mosquitoes, *et cetera*. A number of exercises will be devoted to the public health aspects of certain of the more important tropical diseases.

Advanced Work in Medical Zoölogy and Tropical Medicine

Advanced work and research in protozoölogy, helminthology, and medical entomology may be arranged for qualified students.

Special work on problems relating to tropical or exotic diseases may be arranged for qualified students and opportunities are at times afforded for investigators engaged on special problems to work in laboratories or hospitals situated within the tropics.

COMMUNICABLE DISEASES

Conrad Wesselhoeft, M.D., *Clinical Professor of Communicable Diseases.*

R. Cannon Eley, M.D., *Associate in Pediatrics and Communicable Diseases.*

Edward C. Smith, A.B., M.D., *Instructor in Communicable Diseases.*

Charles F. Walcott, A.B., M.D., *Assistant in Communicable Diseases.*

Teaching in Communicable Diseases is given in the Haynes Memorial Hospital for Contagious Diseases and in the Isolation wards of the Children's Hospital.

Communicable Diseases A

Lectures. *Tuesdays and Fridays, 9–10 A.M., Fifth, Sixth and Seventh months.* Clinics. *Fridays, 3–5 P.M., Fifth, Sixth, and Seventh months.* Dr. Wesselhoeft, Dr. Eley, and associates.

Credit 3 units.

This course consists of lectures, demonstrations, clinics, and conferences on the care and management of patients with communicable diseases, with special consideration of problems which are solved jointly by the public health official and the practicing physician.

Research in Communicable Diseases

Opportunity is offered to qualified students to pursue research work in communicable disease problems in the Department of Communicable Diseases or in conjunction with the Department of Bacteriology and Immunology.

EPIDEMIOLOGY

John E. Gordon, Ph.D., M.D., *Professor of Preventive Medicine and Epidemiology.*

W. Lloyd Aycock, M.D., *Associate Professor of Preventive Medicine and Hygiene.*

Stafford M. Wheeler, A.B., M.D., *Instructor in Preventive Medicine and Epidemiology.*

Vlado A. Getting, A.B., M.D., Dr. P.H., *Assistant in Preventive Medicine and Epidemiology.*

John R. Mote, A.B., M.D., *Assistant in Preventive Medicine and Epidemiology.*

Norman B. Nelson, A.B., M.D., M.P.H., *Assistant in Epidemiology.*

Dean S. Fleming, M.D., M.P.H., *Assistant in Epidemiology.*

Alex J. Steigman, S.B., M.D., *Research Fellow in Preventive Medicine and Epidemiology.*

Albert J. Sheldon, A.M., Sc.D., *Charles Follen Folsom Fellow in Preventive Medicine.*

Epidemiology A

Lectures and laboratory work. *Mondays and Fridays, 11 A.M.–12 M.; Wednesdays, 11 A.M.–12.30 P.M.; and Saturdays, 9–11 A.M.; second half-year.* Dr. Gordon, Dr. Aycock and associates.

Credit 4 units.

A laboratory, lecture and seminar course designed to give the principles, historic development and methods of epidemiology of the communicable diseases with their application to public health. The laboratory work illustrates field experience and field methods in the collection, analysis and interpretation of data on epidemic and endemic disease.

Epidemiology B

Advanced Epidemiology. *Thursdays, 9–11 A.M., Fifth, Sixth and Seventh months; Tuesdays, 2–5 P.M. and Thursdays, 9 A.M.–5 P.M. in the Eighth month.* Drs. Gordon and Aycock.

Credit 2 units.

A conference, field and laboratory course based on studies of current outbreaks of communicable disease. Emphasis is given to investigative procedures and the evaluation of methods of control. Available to students with acceptable preparation.

Epidemiology C

Properly qualified workers may be assigned problems in connection with the general program of field and laboratory investigation being pursued in the department, or may be aided in the development of their own problems. Dr. Gordon and Dr. Aycock.

PUBLIC HEALTH PRACTICE

Edward G. Huber, A.B., M.D., Dr.P.H., *Assistant Professor of Public Health Practice* and *Assistant Dean.*

Harold D. Chope, A.B., M.D., Dr.P.H., *Associate in Public Health Practice.*

Frederick C. Packard, Jr., A.B., *Associate Professor of Public Speaking.*

Francis R. Dieuaide, A.B., M.D., *Associate Professor of Medicine.*

Shields Warren, M.D., *Assistant Professor of Pathology.*

Fred W. Morse, Jr., S.B., M.D., M.P.H., *Assistant Professor of Oral Medicine.*

J. Hartwell Harrison, S.B., M.D., *Associate in Genito-Urinary Surgery.*

Henry D. Chadwick, M.D., *Lecturer on Public Health Practice* and *Medical Director, Middlesex County Sanatorium.*

Alton S. Pope, A.B., M.D., Dr.P.H., *Lecturer on Public Health Practice* and *Deputy Commissioner, Department of Public Health of Massachusetts.*

Roy F Feemster, A.B., M.D., Dr.P.H., *Lecturer on Public Health Practice* and *Director of the Division of Communicable Diseases, Department of Public Health of Massachusetts.*

Herbert L. Lombard, A.B., M.D., M.P.H., *Lecturer on Public Health Practice* and *Director, Division of Adult Hygiene, Department of Public Health of Massachusetts.*

James A. Tobey, LL.B., S.M., Dr.P.H., *Lecturer on Public Health Law.*

C. Walter Clarke, A.M., M.D., *Lecturer on Public Health Practice.*

John J. Poutas, M.D., *Lecturer on Public Health Practice* and *Assistant to the Commissioner, Department of Public Health of Massachusetts.*

Norbert A. Wilhelm, M.D., *Lecturer on Public Health Practice* and *Superintendent, Peter Bent Brigham Hospital.*

Katherine R. Drinker, A.B., M.D., *Instructor in Public Health Practice.*

Ernest M. Morris, A.B., M.D., M.P.H., *Instructor in Public Health Practice* and *Director of Public Health, City of Newton, Massachusetts.*

Public Health Practice A

Lectures and seminars. *Mondays, Wednesdays, and Fridays, 10–11 A.M., second half-year.* Dr. Huber and associates.

Credit 4 units.

The aim of this course is to study the structure and operation of ad-

ministration as applied to the practice of public health. This subject is developed through a study of the principles of public administration, of organization, of personnel management, of public health law, of budgeting and of leadership. With the increasing complexity of government, the health commissioner devotes more and more of his time to administration in general, as distinguished from technical administration in the specialty of public health. The health commissioner, therefore, should understand his relationship to other departments, divisions and bureaus of federal, state and municipal governments. These subjects receive full consideration in the lectures. In order to develop the specific duties of the administrator of a health department, studies will be made of typical problems which present themselves and of the best solutions to these problems. The purpose of this case history method of presentation is to demonstrate the application of the principles of public health to its practice.

Public Health Practice B

Seminars, conferences and field studies. *Thursdays, 9–11 A.M., Fifth, Sixth and Seventh months, Tuesdays, 2–5 P.M. and Thursdays, 9 A.M.–5 P.M. in the Eighth month.*

Credit 2 units, or according to amount of work done.

This course is supplementary to Public Health Practice A in that its subject matter consists chiefly of topics which relate to problems in technical administration in the public health field. The seminar members will be expected occasionally to lead discussions, as well as to participate when seminars are led by non-resident consultants who are leaders in their respective fields. The purpose of the seminars is the study of practical problems of organization and of administration of national, state, district and local health departments. Research into these problems is encouraged.

During the eighth month field exercises will be conducted. These demonstrations are given by the Department of Public Health Practice with the active coöperation of the Massachusetts Department of Public Health, the Health Department of the City of Newton and other official and unofficial health agencies.

A wide variety of special fields in public health administration is available for observation and study by the students, including special activities in large and small city health departments, rural boards of health, departments of school medical inspection, public health nursing, communicable disease control, health units, clinics for the control of tuberculosis and venereal disease, health examinations, contagious disease hospitals, etc.

Research in Public Health Practice

Advanced students are offered the opportunity to undertake special studies in Public Health Practice. The student must have completed Vital Statistics A1 and be enrolled in Public Health Practice A and Epidemiology A before registering for this work.

Education of the Public in Health A

For public health workers, such as nurses and others interested in the field of health education, courses will be arranged after personal conference. Such candidates must be college graduates. For them, one or two years of special work will be arranged.

It is essential for the person going into the field of health education first to have a basic knowledge of anatomy, physiology, and the fundamental medical sciences. He must also know what public health is, what its aims are and what administrative measures are used. Equally essential is a knowledge of educational technique. To give the prospective health educator training in these subjects the Harvard School of Public Health and the Graduate School of Education offer a combined one- or two-year course to college graduates, each student to be assigned to work after an individual conference to determine his particular needs and taking into consideration his training and experience. Credit for previous training in public health and educational methods, or for experience therein, may be granted.

Such a student, after a conference to determine his individual requirements, would elect subjects from the following group.

Harvard School of Public Health

Public Health Practice A
Public Speaking and Radio Technique
Technique of Medical Writing
Bacteriology A
Sanitation A
Nutrition A
Epidemiology A
Parasitology and Tropical Medicine A
Communicable Diseases A
Administrative Control of Syphilis and Gonorrhea
Control of Cancer
Public Health Practice B

Harvard Medical School

Anatomy
Physiology

Graduate School of Education

Educational Psychology 1 or 1*r*
Educational Measurement 1 or 1*r*
Principles of Teaching 5
Philosophy of Education 1 or 1*r*
Elementary Education 1
Secondary Education 1
Educational Administration 1 and/or 2

Faculty of Arts and Sciences and Radcliffe College

Comparative Anatomy and Evolution of Vertebrates
Principles of Physiology

Public Speaking and Radio Technique

Mondays and Wednesdays, 2–4 P.M., Fifth, Sixth and Seventh months. Professor Packard and associates.

Credit 3 units.

This course is designed to provide instruction and practice in the clear and effective communication of public health subjects to audiences.

Particular attention is given to those elements of composition which are especially important in spoken presentation; such as clarity of structure, the use of good illustrations and of direct non-scientific vocabulary, and the adaptation of the subject matter to different types of audience.

Attention is given to training the voice for effective delivery, both from the public platform and before the microphone.

Prepared speeches of different types, and varying in length from three to thirty minutes, constitute the major application of principles. Outside speaking engagements, with the possibility of at least one actual broadcast, furnish further opportunity for guided practice.

Technique of Medical Writing

Saturdays, 10–11 A.M., Third and Fourth months. Dr. Katherine R. Drinker.

Credit ½ unit for lectures and 1½ units for term paper.

A series of lectures, class discussions, and practical demonstrations covers such subjects as using a medical library; preparing a working bibliography; making an outline; writing and revising a paper — including a discussion of paragraph development and sentence structure; preparing tables and illustrations; citing references; proofreading, etc. The term paper required in the major field of interest provides each student with a practical exercise in medical writing. This exercise is

supplemented in the second semester with group conferences in which short written exercises of different types are presented and discussed from the points of view of plan and of effective construction.

Control of Cancer

Fridays, 2–3 P.M., Third and Fourth months. Dr. Warren.

Credit ½ unit.

The aim of this course is to describe the special control methods which are applicable. The subject is viewed from the standpoint of the administrator rather than from that of the epidemiologist or of the specialist.

Control of Syphilis and Gonorrhea

Lectures

Syphilis. *Mondays, 11 A.M.–12 M., First, Second and Third months, and Saturdays, 11 A.M.–12 M., Third month.* Dr. Dieuaide and associates.

Gonorrhea. *Saturdays, 11 A.M.–12 M., First and Second months.* Dr. Harrison and associates.

Administrative Control of Syphilis and Gonorrhea. *Mondays and Saturdays, 11 A.M.–12 M., Tuesdays and Wednesdays, 2–3 P.M., and Thursdays, 2.30–3.30 P.M., from January 5–17 inclusive.* Dr. Clarke.

Credit 3 units for the semester's work.

Clinics

Clinical instruction in Syphilis at the Massachusetts General Hospital. *Mondays through Fridays, 2–5 P.M., and Saturday mornings.* Dr. Dieuaide.

Special clinical instruction in syphilis is available at the Massachusetts General Hospital for those who are planning to do public health work in this field. The clinics are held on week-day afternoons and on Saturday mornings and by individual arrangement students may elect as much of this work as desired, at any time during the year.

Credit units according to amount of work done.

Special clinical instruction in gonorrhea is available at the Peter Bent Brigham Hospital, at hours to be arranged for individual students according to particular needs. The various phases of the diagnosis and treatment of gonorrhea will be demonstrated. Dr. Harrison and associates.

Credit units according to amount of work done.

Serological Diagnosis of Syphilis. Dr. Hinton. See page 21.

Students desiring to specialize in the control of syphilis and gonorrhea may elect part, or all, of the work offered in this field. The didactic,

clinical lectures and the lectures on administrative control are given by specialists in their respective fields.

Dental Public Health Practice

SEMINARS

Administrative Procedures. *Monday afternoons in Third and Fourth months.* Dr. MORSE.

These discussions will be concerned chiefly with methods used in the conduct of public health dental programs.

Oral Bacteriology and Pathology. *Four hours per week, Third and Fourth, or Fifth and Sixth months.*

Emphasis is placed on the laboratory study of the oral manifestations of disease. The latest developments in the field of nutrition as well as in medical science in general will be studied in their relationship to dentistry.

FIELD WORK

Dental Public Health Practice.

During the second semester an extensive program of field work is undertaken. The Dental Service of the New York City Department of Health, as well as the dental public health work in the State Health Departments of New York, Connecticut and Maine are observed. The Massachusetts Department of Public Health and other local dental programs, including that of the Health Department of the City of Newton, are always available for visits. This group of agencies provides a varied program which includes several forms of dental health service, as well as programs in research and dental health education.

Children's Dentistry.

Dentists attending the School are assumed to have had training and experience in children's dentistry. As additional experience, visits to the Forsyth Infirmary and to the Harvard Dental School clinics are arranged for. Opportunities are also given to attend lectures in children's dentistry at the Harvard Dental School.

Credit units for the above will be assigned on the basis of the work done.

CHILD HYGIENE

KENNETH D. BLACKFAN, M.D., *Thomas Morgan Rotch Professor of Pediatrics.*

RICHARD M. SMITH, A.B., M.D., S.D., *Clinical Professor of Pediatrics and Child Hygiene.*

HAROLD C. STUART, LITT.B., M.D., *Assistant Professor of Pediatrics and Child Hygiene.*

William T. Green, A.M., M.D., *Assistant Professor of Orthopaedic Surgery.*

Louis K. Diamond, A.B., M.D., *Associate in Pediatrics.*

M. Luise Diez, M.D., *Instructor in Child Hygiene.*

Stewart H. Clifford, M.D., *Instructor in Pediatrics and Child Hygiene.*

Bertha S. Burke, A.M., *Instructor in Nutrition.*

Samuel B. Kirkwood, A.B., M.D., *Instructor in Obstetrics and in Maternal Health.*

Child Health A

Lectures. *Mondays, Wednesdays, and Fridays, 9–10 A.M., first half-year.* Dr. Smith, Dr. Stuart and associates.

Credit 4 units.

This course presents in broad outline various subjects which have an important relation to child health. They are grouped under the following general divisions.

1. — Maternal Hygiene and Obstetrical Care

Lectures dealing with those aspects of maternal care which are of concern to the health officer and which require attention for the protection of the fetus as well as the mother.

2. — Growth and Development

The lectures on Growth and Development consider not only normal occurrences, but the requirements for satisfactory progress, and the problems of health appraisal in childhood. An attempt is made in this division to cover the scientific foundations upon which activities in the field of child health should be constructed.

3. — Morbidity and Mortality

Lectures on Morbidity and Mortality focus attention upon the chief conditions requiring preventive effort and the prevalence of various risks and handicaps.

4. — Child Hygiene

These lectures deal with the methods and channels of applied child health activities, both public and private. The care and protection of the neonate, the infant, the pre-school child and the school child are taken up successively in lectures and discussion periods. The formation

of health habits in the general field of mental hygiene are included in these lectures.

During the year 1940–41 special lectures were given by the following:

Florence B. Hopkins, D.M.D., M.D.
Foster S. Kellogg, M.D.
C. Stanley Raymond, M.D.
T. Duckett Jones, M.D.
Austin W. Cheever, M.D.
John G. Kuhns, M.D.
Paul A. Chandler, M.D.
Douglas A. Thom, M.D.
Mr. Cheney Jones
Elizabeth E. Lord, Ph.D.
Harold D. Chope, M.D., Dr. P.H.

Child Health B

Seminars. *Tuesdays and Thursdays, 3.30–5.00 P.M., first half-year.* Dr. Kirkwood.

Credit 2½ units.

This course supplements the lectures in Maternal Hygiene and Obstetrical Care given in Child Health A. It presents in some detail both the clinical and the more purely administrative problems to be faced by the health officer in this field. Twenty-two periods are given to the discussion of recent advances in obstetrics and treatment of common obstetrical difficulties.

In an additional six periods, problems of organization and administration are considered.

Students may elect either or both of these two groups and will receive credit accordingly.

Child Health C

Seminars, clinical and field work. *Mondays, 2.00–5.00 P.M.; Thursdays, 9.00 A.M.–5.00 P.M., second half-year.*

Credit 3 units.

The aim of this course is to give practical instruction in the conduct of various health activities. The schedule of activities will be arranged as far as possible to meet the particular needs of each student.

Through field exercises an additional opportunity is offered to study at first hand the work of the Division of Child Hygiene of the State Department of Public Health, the Infant and Pre-School Child Welfare Conferences of the Boston City Health Department, and the health program in the schools of the City of Newton. The care and protection of handicapped children is also demonstrated on visits to such institutions as the Florence Crittenton Home, the New England Home for Little Wanderers, and the Wrentham State School. The Infants' and Children's Hospital, the House of the Good Samaritan, and other hospitals offer clinics and ward rounds. Seminars from 4.00–5.00 P.M. on Mon-

days for a part of the semester provide opportunities for further discussion of the clinical and field problems raised by this study.

Field work in maternal hygiene is offered at the South Boston Clinic of the Boston Lying-in Hospital for pre-natal and post-natal problems, at the Out-Patient Clinic of the Free Hospital for Women in Brookline for the gynecological aspects of maternal hygiene, and at the Boston Lying-in Hospital. A seminar meeting at 4.00–5.00 P.M. on Thursdays for twelve weeks considers in detail problems of organization and administration in this field.

PHYSIOLOGY

Cecil K. Drinker, S.B., M.D., S.D., *Dean* and *Professor of Physiology.*

Madeleine F. Warren, A.M., Ph.D., *Associate in Physiology.*

Frank W Maurer, Ph.D., *Research Associate in Physiology.*

J. William Heim, Ph.D., *Lecturer on Physiology.*

Jane D. McCarrell, A.M., Ph.D., *Research Associate in Physiology.*

Alfred F. Goggio, M.D., *Research Fellow in Medicine.*

Stanley M. Levenson, M.D., *Research Associate in Physiology.*

Robert J. Benford, M.D., *Research Associate in Physiology.*

Norman W. White, M.D., *Research Associate in Physiology.*

Ecology A

Lectures. *Mondays and Wednesdays, 9–10 A.M., second half-year.* Dr. Drinker and associates.

Credit 3 units.

Ecology is that branch of biological science which deals with the relations of living organisms to their surroundings.

It is the effort of sanitary engineering to provide living and working conditions safe and tolerable for man all over the world and under many different circumstances. The human organism reacts characteristically to many changes in physical environment, to chemical changes in the atmosphere, and to alterations in food supply. In every instance large groups of people are involved and a reasonable knowledge of the principles of public health thus requires realization of the effects of the commoner environmental conditions met by man. These are heat, cold, humidity, dryness, alterations in barometric pressure, light, contamination of the atmosphere by smoke, dusts and chemicals, and changes in diet.

The course will consist of lectures, conferences and demonstrations covering the reaction caused by the varieties of human experience.

Research in Physiology

Properly qualified students will be given opportunities to work in the laboratory provided they can spend at least six months of undivided time.

BIOLOGICAL CHEMISTRY

A. Baird Hastings, Ph.D., *Hamilton Kuhn Professor of Biological Chemistry.*

Otto A. Bessey, Ph.D., *Associate in Biological Chemistry in charge of Nutrition.*

Bertha S. Burke, A.M., *Instructor in Nutrition.*

Nutrition

Lectures. *Tuesdays and Saturdays, 9–10 A.M., first half-year, and Thursdays, 9–10 A.M., Third and Fourth months.* Dr. Bessey and Mrs. Burke.

Credit 3½ units.

The course deals with the fundamentals of the chemistry and physiology of nutrition and the practical application of these principles to the problems of human nutrition, especially in the field of public health.

Among the subjects discussed are energy metabolism; protein, mineral, and vitamin metabolism; methods for establishing the minimum and optimum nutritional requirements, together with the problems of meeting these requirements, especially for low income groups. Dietary requirements are considered in their relation to growth, development, pregnancy, lactation, and the formation and maintenance of dental structures. Methods of taking nutritional histories and the use of physical and chemical methods for evaluating the nutritional state of individuals or large groups are presented. The consequences are discussed of nutritional deficiencies and the relation of optimum nutrition to national health and economy. The place of the nutritionist in the public health program is considered and procedures are suggested for educational work. The nutritional problems of war and other emergencies are dealt with, and the relation of production, distribution and preparation to the best use of foods discussed.

Nutrition B

Dr. Bessey and Mrs. Burke

Time and credit to be arranged.

The course consists of selected reading, conferences, and field trips for those especially interested in nutrition. Admission is limited to a few students and is subject to the approval of the instructor.

PUBLIC HEALTH ENGINEERING

Industrial Hygiene and Sanitary Engineering

Philip Drinker, S.B., Ch.E., *Professor of Industrial Hygiene.*

Gordon M. Fair, S.M., *Abbot and James Lawrence Professor of Engineering* and *Gordon McKay Professor of Sanitary Engineering.*

Constantin P. Yaglou, A.B., S.B., M.M.E., *Associate Professor of Industrial Hygiene.*

W. Irving Clark, A.B., M.D., F.A.C.S., *Clinical Professor of the Practice of Industrial Medicine.*

Melville C. Whipple, *Associate Professor of Sanitary Chemistry.*

Edward W. Moore, A.M., *Associate Professor of Sanitary Chemistry.*

Charles E. Renn, S.B., Ph.D., *Faculty Instructor in Sanitary Biology.*

Harold A. Thomas, Jr., S.D., *Faculty Instructor in Sanitary Engineering.*

Reuben Z. Schulz, A.M., M.D., *Instructor in Pathology.*

Charles R. Williams, Ph.D., *Instructor in Industrial Hygiene.*

Leslie Silverman, S.M., *Research Associate in Industrial Hygiene.*

Thomas L. Shipman, Ph.B., M.D., *Instructor in the Practice of Industrial Medicine.*

Ralph W. McKee, A.B., S.M., Ph.D., *Instructor in Industrial Hygiene.*

Erich Lindemann, Ph.D., M.D., *Associate in Psychiatry.*

Hervey B. Elkins, Ph.D., *Instructor in Industrial Hygiene.*

Manfred Bowditch, A.B., *Lecturer on Industrial Hygiene.*

Wesley C. L. Hemeon, S.M., *Lecturer on Industrial Hygiene.*

Emma S. Tousant, LL.B., *Lecturer on Workman's Compensation.*

Henry C. Marble, A.B., M.D., *Assistant in Industrial Hygiene.*

Matthew D. R. Riddell, S.B., *Assistant in Sanitary Engineering.*

Robert P. Burden, S.M., *Teaching Fellow in Sanitary Engineering.*

Shih L. Chang, M.D., Dr. P.H., *Research Fellow in Sanitary Engineering.*

Industrial Hygiene A

Lectures and demonstrations. *Mondays, Wednesdays, and Fridays, 2–4 P.M., Fifth, Sixth and Seventh months.* Field trips, *2–5 P.M., on eight days, dates to be announced.* Professor Drinker and associates.

Credit 4 units.

A course of lectures, demonstrations, clinics, and inspections showing the relation of working conditions to health, with special reference to the cause, prevention and treatment of industrial disabilities.

Industrial Hygiene B (Laboratory)

Laboratory work. *Tuesdays, 2–5 P.M. and Thursdays, 2.30–5 P.M. First month through Seventh month.* Professor DRINKER and associates.

Credit 5 units.

Laboratory exercises in measuring airflow, in appraising air conditioning and ventilating installations, in determining and identifying atmospheric impurities, and in making toxicological analysis of importance in industrial medical problems.

Heating and Ventilating (Engineering 140a)

Lectures. *Monday, Wednesday, and Friday, 9–10 A.M., first half-year, at Pierce Hall, Cambridge.* Professor C. H. BERRY and Mr. F. R. ELLIS.

The theory and practice of heating and ventilating. For engineers.

Air Conditioning (Engineering 140b)

Lectures. *Monday, Wednesday, and Friday, 9–10 A.M., second half-year, at Pierce Hall, Cambridge.* Assoc. Professor YAGLOU and associates.

The theory and practice of air conditioning. For engineers.

Research in Industrial Hygiene, Heating and Ventilating, and Air Conditioning

A limited number of qualified students will be given an opportunity to do research work in these general fields.

The Principles of Sanitation A

Lectures and demonstrations. *Tuesdays, 10 A.M.–12 M., first half-year; Thursdays, 9 A.M.–12 M., First and Second months, 10 A.M.–12 M., Third and Fourth months.* Professor FAIR and associates.

Credit 4 units.

A course of lectures, demonstrations and inspections arranged especially for students in the School of Public Health. The following topics will be studied: (*a*) Water Supply — collection, purification and distribution; (*b*) Sewerage — collection, treatment and disposal; (*c*) Analysis of Water and Sewage — physical, chemical and biological; (*d*) Housing, City Planning and Zoning; (*e*) Rural Sanitation; (*f*) Biological Control — insects and rodents; (*g*) Food Sanitation — production, pres-

ervation, distribution and preparation; (*h*) Milk Sanitation; (*i*) Shellfish Sanitation; (*j*) Garbage and Refuse — collection and disposal; (*k*) Sanitation of Schools, Camps and Bathing Places.

Sanitation B (Laboratory)

Laboratory and field work. *Tuesdays, 2–5 P.M. and Thursdays, 2.30–5 P.M., Fifth, Sixth and Seventh months.* Professor Fair and Dr. Thomas.

Credit 2 units.

Examination of water and water supplies, milk and milk supplies, swimming pools, drainage systems, and food handling establishments. Experimental water purification and sewage treatment. Interpretation of engineering drawings of sanitary works.

The following courses of instruction offered in the Graduate School of Engineering are open to properly qualified students:

Engineering 400a. Water Supply and Sewerage. Professor Fair.

Engineering 400b. Water Purification and Sewage Treatment Works. Professor Fair.

Engineering 410a and 410b. Chemical Examination of Water and Sewage. Associate Professor Whipple.

Engineering 411a. Sanitary Bacteriology. Dr. Thomas.

Engineering 411b. Sanitary Bacteriology. Dr. Renn.

Engineering 412a and 412b. Theoretical Principles of Sanitary Chemistry. Asst. Professor Moore.

Engineering 413a. Sanitary Limnology and Rheology. Dr. Renn.

Engineering 413b. Sanitary Parasitology. Dr. Renn.

Engineering 430b. Theory of Water Purification and Sewage Treatment. Asst. Professor Moore.

Engineering 431b. Field and Laboratory Work in Water Purification and Sewage Treatment. Associate Professor Whipple.

Engineering 432b. Industrial Wastes and Municipal Refuse. Asst. Professor Moore.

VITAL STATISTICS

Edwin B. Wilson, Ph.D., *Professor of Vital Statistics.*

Carl R. Doering, A.B., M.D., S.D., *Assistant Professor of Vital Statistics.*

Jane Worcester, A.B., *Associate in Vital Statistics.*

Vital Statistics A1

Lectures and laboratory work. *Mondays, 10–11 A.M., Wednesdays and Fridays, 10 A.M.–12 M., first half-year.* Dr. Doering.

Credit 5 units.

This introduction to Vital Statistics will consist of lectures, recitations, and written work designed to familiarize the student with (1) the general facts already well established in demography, (2) the methods of graphical representation, (3) the calculation and use of averages and of measures of variation, and (4) the common types of rates, their adjustment and comparison.

References: M. J. Rosenau, *Preventive Medicine*, Chap. XXX, by C. R. Doering.
A. Bradford Hill, *Principles of Medical Statistics.*

Vital Statistics A2

Lectures and laboratory work. *Tuesdays, 10 A.M.–12.30 P.M., Thursdays and Saturdays, 11 A.M.–12.30 P.M., Fifth, Sixth and Seventh months; Tuesdays, 9 A.M.–12.30 P.M. and Saturdays, 11 A.M.–12.30 P.M., Eighth month.* Professor Wilson.

Credit 4 units.

This course deals with the elements of the theory of statistical method with especial emphasis on those types of reasoning which are important for the proper planning and execution of field or laboratory investigations. It includes (1) the basic theory of probability, including errors of sampling, (2) association (Yule) and correlation, (3) arithmetic and geometric trends and, as time permits, various other topics such as life tables, rise and fall of epidemics, and the analysis of variation into component parts.

Reference: G. U. Yule, *Introduction to the Theory of Statistics.*

Vital Statistics B

Professor Wilson or Dr. Doering

Credit according to amount of work done.

A reading course, in either or both half-years, without specific assignment of hours, for students who have a satisfactory knowledge of elementary statistics and wish individual supervision in their study of more advanced parts of the subject.

Vital Statistics C

Professor Wilson or Dr. Doering

Credit according to amount of work done.

A research course, in either or both half-years, for students, whether specializing in Vital Statistics or in any other field of public health or the social disciplines, who desire to make statistical investigations of their own or to coöperate in the general statistical research of the Department.

The Physician and the Community

Lectures and discussions. *Mondays, Wednesdays and Fridays, 2–3 P.M., Eighth month.* Dr. Doering and others to be announced.

Credit $\frac{1}{2}$ unit.

After a few introductory lectures the course will consist of discussions of situations and conditions arising as a result of the social organization of the community. The health officer with a few years' experience has encountered problems based on the organization with which he is familiar. These problems are closely related to the health of the community and to the administration of a health program. In past years, students have requested discussions of social factors relating to the public health and this course is offered tentatively.

The discussion group will be limited to those who have had some experience in the public health field. Those who have not had such experience may attend the discussions as auditors. The selection of members of the class will be made by the Instructor after consultation with candidates.

STUDENTS 1940–41

Candidates for the Degree of Doctor of Public Health

Buker, Richard S., S.B., M.D., M.P.H.	Kengtung, Burma
Chang, Shih Lu, M.D.	Changsha, China
Hawkins, James W., S.B., S.M., M.D., M.P.H.	Coeur d'Alene, Idaho
Mosley, Kirk T., A.B., M.D., M.P.H.	Texarkana, Arkansas
Snegireff, Leonid S., M.D.	Trenton, N. J.

Candidates for the Degree of Master of Public Health

Aiken, Robert B., PH.B., S.M., M.D.	Barre, Vt.
Bertram, Frank P., D.D.S.	Oklahoma City, Okla.
Bishop, Elizabeth E., A.B., M.D.	Worcester, Mass.
Clarke, Albert S. J., S.B., M.D.	Ozark, Arkansas
Conrad, William F., S.B., M.D.	Los Angeles, Calif.
Davidow, Morris N., S.B., M.D.	Roxbury, Mass.
Dawson, Frank P., M.D.	North Andover, Mass.
DeCamp, Floyd H., D.D.S.	Portland, Oregon
Dement, John C., A.B., M.D.	Oakland, Calif.
Fleming, Dean S., M.B., M.D.	Minneapolis, Minn.
Foley, James V., M.D.	Pocatello, Idaho
Frost, David, S.B., M.D.	Williams, Calif.
Gaines, Maxwell L., D.D.S.	Washington, D. C.
Gateley, John R., M.D.	Roslindale, Mass.
Gillick, Frederick G., S.B., M.D.	St. Louis, Mo.
Guyton, Clarence L., S.B., M.D.	Columbia, S. C.
Harris, Earle H., M.D.	Albany, N. Y.
Hayek, John M., M.D.	Des Moines, Iowa
Howard, Ernest B., A.B., M.D.	Belmont, Mass.
King, Irving J., PH.B., M.D.	Chicago, Ill.
Lesser, Arthur, A.B., M.D.	Brooklyn, N. Y.
Lien, Arthur E., M.D.	Spokane, Wash.
Loy, William A, S.B., M.D.	Ardmore, Okla.
Matias, Manuel Y., M.D., C.P.H.	Manila, P. I.
Miao, J. Ancheng, M.D.	Kunming, China
Nelson, Norman B., A.B., M.D.	Los Angeles, Calif.
O'Malley, Martha A., M.D.	Hartford, Conn.
Pearson, Harold E., A.B., M.D.	Berkeley, Calif.
Ross, David H., S.B., M.D.	Albany, N. Y.
Rothermel, Robert E., S.B., M.D.	Opelika, Ala.
Sheppard, Livingston B., M.D.	Paintsville, Ky.
Siragusa, James J., M.D.	East Boston, Mass.

Soules, Mary E., A.B., S.B., M.D.	Dickinson, N. D.
Ward, James P., S.B., M.D.	Greenville, Miss.
Weaver, Thomas S., A.B., A.M., M.D.	Nashville, Tenn.
Whitted, Harold H., S.B., M.D.	Washington, D. C.
Zimmerer, Edmund G., M.D.	Centerville, Iowa

Candidates for the Certificate in Public Health

Cook, Eula B. M., A.B., A.M.	Austin, Texas
Lenehan, Francis J., PH.G.	San Francisco, Calif.
Leone, Nicholas C., PH.G.	Oakland, Calif.
Perry, Dorothy F., A.B.	Newport, N. H.
Skinner, William F., S.B.	Richmond, Va.
Unfred, Edmond F., PH.G., PH.C.	Los Angeles, Calif.
Willmert, Gertrude P., S.B., S.M.	Minneapolis, Minn.

Special Students

Bailey, Frederick J., M.D.	Boston, Mass.
Ballenger, Murray W., A.B., S.B., M.D.	Lubbock, Texas
Bedwell, Theodore C., Jr., S.B., M.D.	Washington, D. C.
Boger, Ellwood V., S.B., M.D.	Philadelphia, Pa.
Burton, Otto L., S.B., M.D., M.P.H.	Silver Springs, Md.
Butler, James B., S.B., M.D.	Swedesboro, N. J.
Carter, Thomas J., A.B., M.D., DR.P.H.	Washington, D. C.
Connelly, Thomas P., A.B., M.D.	Yeadon, Pa.
Duff, Valentine S., S.B.	Hingham, Mass.
Hogan, Gerald F., A.B.	Everett, Mass.
Jeffers, Clark P., S.B., M.D.	Lombard, Ill.
Kiper, Cemal Ali, A.B., M.D., M.P.H.	Ankara, Turkey
Martins, Diva R. de O.	Rio de Janeiro, Brazil
Miranda, Artemio, M.D.	Lima, Peru
Palmberg, Karl J., S.B., M.B., M.D.	Red Oak, Iowa
Petrie, Lester M., S.B., M.D., M.P.H.	Atlanta, Ga.
Relova, Rogelio M., M.D.	Manila, P. I.
Romero, Hernan, B.HUM., M.D., M.SC.P.H.	Santiago, Chile
Schneider, Oscar, A.B., M.D.	Washington, D. C.
Sessions, Howard K., S.B., M.D.	Sumner, Ga.
Small, Albert E., A.B., M.D.	Melrose, Mass.
Vallenas, Ramon, M.D.	Lima, Peru
Welt, Louis G., A.B., M.D.	New Haven, Conn.
Yates, Marion T., M.D.	Charleston, S. C.
Yoshikawa, Haruhisa, M.D.	Tokyo, Japan

DEGREES

On June 20, 1940, Degrees and Certificates were conferred as follows:

Doctor of Public Health, *cum Laude*

Vlado Andrew Getting, A.B. (*Johns Hopkins Univ.*) 1931, M.D. (*Harvard Univ.*) 1935, M.P.H. (*ibid.*) 1938.

Thesis: Mosquito-Vectors of Disease in Massachusetts. The Epidemiology of Equine Encephalomyelitis and Malaria with Ecological and Entomological Studies of Mosquitoes in Massachusetts.

Special Field: Epidemiology.

Doctor of Public Health

Charas Yamarat, M.B. (*Chulalankarana Univ.*) 1934, M.P.H. (*Johns Hopkins Univ.*) 1938.

Thesis: A Study of Lymphocytic Choriomeningitis.

Special Field: Bacteriology.

Master of Public Health, *cum Laude*

Rodney Rau Beard, A.B. (*Stanford Univ.*) 1932, M.D. (*ibid.*) 1938.

Albert Sidney Dix, S.B. (*Howard Coll.*) 1931, M.D. (*Univ. of Chicago*) 1936.

James Wesley Hawkins, S.B. (*Univ. of Idaho*) 1930, S.M. (*ibid.*) 1931, M.D. (*Harvard Univ.*) 1935.

Margaret Holden Jones, A.B. (*Radcliffe Coll.*) 1925, A.M. (*Vassar Coll.*) 1927, M.D. (*Cornell Univ.*) 1933.

George Kahn, S.B. (*Mass. Institute of Technology*) 1918, M.D. (*Harvard Univ.*) 1922.

Ellarene Lucille MacCoy, A.B. (*Cornell Univ.*) 1922, M.D. (*Western Reserve Univ.*) 1928.

Kirk Thornton Mosley, A.B. (*Hendrix Coll.*) 1927, M.D. (*Tulane Univ.*) 1931.

Master of Public Health

Sombun Phong Aksara, M.D. (*Chulalankarana Univ.*) 1935.

Hugo Victor Ascolillo, S.B. (*Tufts Coll.*) 1930, M.D. (*Boston Univ.*) 1934.

Julius Bolden Askew, M.D. (*Univ. of Arkansas*) 1936.

Herald Kern Bailey, M.D. (*Univ. of Louisville*) 1934.

Harold Nord Brodersen, S.B. (*Pacific Union Coll.*) 1937, M.D. (*Coll. of Medical Evangelists*) 1939.

Frederick Farrell Brown, S.B. (*Morehouse Coll.*) 1931, M.D. (*Meharry Medical Coll.*) 1935.

Philip Ray Carter, D.V.M. (*Kansas State Coll.*) 1926.

Rolland Chester Dalgleish, D.D.S. (*Northwestern Univ.*) 1918.

Charles Floyd Deatherage, D.D.S. (*Univ. of Illinois*) 1927.

Leslie Warren Foker, S.B. (*Univ. of Minnesota*) 1928, M.B. (*ibid.*) 1933, M.D. (*ibid.*) 1934.

John Russell Frantz, A.B. (*LaVerne Coll.*) 1932, M.D. (*Coll. of Medical Evangelists*) 1938.

Frank Everett Gallison, M.D. (*Univ. of Southern California*) 1938.

Lyman Dunlap Heacock, A.B. (*Univ. of California*) 1916, D.D.S. (*ibid.*) 1919.

Ralph Heinrich Heeren, S.B. (*Iowa State Coll.*) 1924, S.M. (*Western Reserve Univ.*) 1929, PH.D. (*ibid.*) 1931, M.D. (*Univ. of Iowa*) 1934.

Marion Hotopp, A.B. (*Mt. Holyoke Coll.*) 1921, M.D. (*Cornell Univ.*) 1934.

Cemal Ali Kiper, M.D. (*Istanbul Univ.*) 1932.

Philip Lapidus, D.D.S. (*Univ. of Pittsburgh*) 1927.

Marco-Tulio Magana, B.SC. (*National Institute of Science*) 1926, M.D. (*National Univ. of El Salvador*) 1927.

Anthony Joseph Manzella, M.D. (*Univ. of Buffalo*) 1927.

Chester Ray Markwood, S.B. (*Ohio State Univ.*) 1929, M.D. (*ibid.*) 1932.

Fred Winslow Morse, Jr., S.B. (*Dartmouth Coll.*) 1918, M.D. (*Harvard Univ.*) 1924.

Victor Alonzo Ocampo, M.D. (*National Univ. of Mexico*) 1925.

Frank Randolf Philbrook, S.B. (*Boston Univ.*) 1929, M.D. (*ibid.*) 1935.

Sherman Spalding Pinto, A.B. (*Univ. of Nebraska*) 1928, A.M. (*ibid.*) 1931, M.D. (*ibid.*) 1932.

Richard James Plunkett, M.D. (*Tufts Coll.*) 1933.

Guillermo Roman, M.D. (*Medical Military School of Mexico*) 1927.

Abraham Daniel Rubenstein, A.B. (*Harvard Univ.*) 1928, M.D. (*Boston Univ.*) 1933.

William Lewis Schafer, Jr., M.D. (*George Washington Univ.*) 1925.

Hidetoshi Shiga, M.D. (*Tokyo Imperial Univ.*) 1927.

Susan Page Souther, A.B. (*Univ. of Nebraska*) 1918, M.D. (*Johns Hopkins Univ.*) 1923.

Starling Daniel Steiner, S.B. (*West Virginia Univ.*) 1935, M.B. (*Northwestern Univ.*) 1937, M.D. (*ibid.*) 1938.

Digavally SubbaRao, M.B., B.SC. (*The Madras Medical Coll.*) 1925, B.S.SC. (*ibid.*) 1927.

Allan Curtis Thurman, A.B. (*Univ. of Utah*) 1934, M.D. (*Univ. of Louisville*) 1937.

Benjamin Vicuna Viel, A.B. (*National Institute*) 1930, M.D. (*Univ. of Chile*) 1938.

Carl Edward Weigele, M.D. (*Columbia Univ.*) 1920.

Certificate of Public Health

Eugene George Dahlkey, S.B. (*Univ. of Idaho*) 1931.

Arthur Paul Dunnigan, S.B. (*Univ. of Maryland*) 1930, PH.D. (*ibid.*) 1936.

On February 17, 1941, the following degrees were conferred:

Doctor of Public Health

Lloyd Joseph Florio, A.B. (*Cornell Univ.*) 1931, M.D. (*Univ. of Rochester*) 1935.

Thesis: Studies in Maternal and Neonatal Hygiene in a Rural Community.

Special Field: Maternal and Child Health.

Claire Willard Twinam, S.B. (*Univ. of Iowa*) 1931, M.D. (*ibid.*) 1934.

Thesis: Studies in Tuberculosis Control in the Rural Section of Berkshire County.

Special Field: Public Health Administration.

TABULAR VIEW

	FIRST MONTH (*September 22–October 18*)	SECOND MONTH (*October 20–November 15*)
Monday	Child Health A 9–10 A.M. Vital Statistics A1 10–11 A.M. Syphilis 11 A.M.–12 M. Bacteriology A 2–5 P.M.	Child Health A 9–10 A.M. Vital Statistics A1 10–11 A.M. Syphilis 11 A.M.–12 M. Bacteriology A 2–5 P.M.
Tuesday	Nutrition A 9–10 A.M. Sanitation A 10 A.M.–12 M. Industrial Hygiene B 2–5 P.M. Child Health B 3.30–5 P.M.	Nutrition A 9–10 A.M. Sanitation A 10 A.M.–12 M. Bacteriology 32 2–5 P.M. Industrial Hygiene B 2–5 P.M. Child Health B 3.30–5 P.M.
Wednesday	Child Health A 9–10 A.M. Vital Statistics A1 10–A.M.–12 M. Bacteriology A 2–5 P.M.	Child Health A 9–10 A.M. Vital Statistics A1 10 A.M.–12 M. Bacteriology A 2–5 P.M.
Thursday	Sanitation A 9 A.M.–12 M. Industrial Hygiene B 2.30–5 P.M. Child Health B 3.30–5 P.M.	Sanitation A 9 A.M.–12 M. Bacteriology 32 2:30–5:30 P.M. Industrial Hygiene B 2.30–5 P.M. Child Health B 3.30–5 P.M.
Friday	Child Health A 9–10 A.M. Vital Statistics A1 10 A.M.–12 M. Bacteriology A 2–5 P.M.	Child Health A 9–10 A.M. Vital Statistics A1 10 A.M.–12 M. Bacteriology A 2–5 P.M.
Saturday	Nutrition A 9–10 A.M. Bacteriology A 10–11 A.M. Gonorrhea 11 A.M.–12 M.	Nutrition A 9–10 A.M. Bacteriology A 10–11 A.M. Gonorrhea 11 A.M.–12 M.

TABULAR VIEW

	THIRD MONTH (*November 17–December 13*)	FOURTH MONTH (*December 15–January 24*) Recess December 23–January 2 Examination Week January 19–24
Monday	Child Health A 9–10 A.M. Vital Statistics A1 10–11 A.M. Syphilis 11 A.M.–12 M.	Child Health A 9–10 A.M. Vital Statistics A1 10–11 A.M. Control of Syphilis and Gonorrhea 11 A.M.–12 M. (Jan. 5, 12)
Tuesday	Nutrition A 9–10 A.M. Sanitation A 10 A.M.–12 M. Bacteriology 32 2–5 P.M. Industrial Hygiene B 2–5 P.M. Child Health B 3.30–5 P.M.	Nutrition A 9–10 A.M. Sanitation A 10 A.M.–12 M. Control of Syphilis and Gonorrhea 2–3 P.M. (Jan. 6, 13) Industrial Hygiene B 2–5 P.M. Child Health B 3.30–5 P.M.
Wednesday	Child Health A 9–10 A.M. Vital Statistics A1 10 A.M.–12 M.	Child Health A 9–10 A.M. Vital Statistics A1 10 A.M.–12 M. Control of Syphilis and Gonorrhea 2–3 P.M. (Jan. 7, 14)
Thursday	Nutrition A 9-10 A.M. Sanitation A 10 A.M.–12 M. Bacteriology 32 2.30–5.30 P.M. Industrial Hygiene B 2.30–5 P.M. Child Health B 3.30–5 P.M.	Nutrition A 9–10 A.M. Sanitation A 10 A.M.–12 M. Control of Syphilis and Gonorrhea 2.30-3.30 P.M. (Jan. 8, 15) Industrial Hygiene B 2.30–5 P.M. Child Health B 3.30–5 P.M.
Friday	Child Health A 9–10 A.M. Vital Statistics A1 10 A.M.–12 M. Control of Cancer 2–3 P.M.	Child Health A 9–10 A.M. Vital Statistics A1 10 A.M.–12 M. Control of Cancer 2–3 P.M.
Saturday	Nutrition A 9–10 A.M. Medical Writing 10–11 A.M. Syphilis 11 A.M.–12 M.	Nutrition A 9–10 A.M. Medical Writing 10–11 A.M. Control of Syphilis and Gonorrhea 11 A.M.–12 M. (Jan. 10, 17)

TABULAR VIEW

	FIFTH MONTH (*January 26–February 21*)	SIXTH MONTH (*February 23–March 21*)
Monday	Ecology A 9–10 A.M. Public Health Practice A 10–11 A.M. Epidemiology A 11 A.M.–12 M. Industrial Hygiene A 2–4 P.M. Public Speaking 2–4 P.M. Child Health C 2–5 P.M.	Ecology A 9–10 A.M. Public Health Practice A 10–11 A.M. Epidemiology A 11 A.M.–12 M. Industrial Hygiene A 2–4 P.M. Public Speaking 2–4 P.M. Child Health C 2–5 P.M.
Tuesday	Communicable Diseases A 9–10 A.M. Vital Statistics A2 10 A.M.–12.30 P.M. Parasitology A 2–5 P.M. Sanitation B 2–5 P.M. Industrial Hygiene B 2–5 P.M. Bacteriology 34 2–5 P.M. (February 3, 10, 17)	Communicable Diseases A 9–10 A.M. Vital Statistics A2 10 A.M.–12.30 P.M. Parasitology A 2–5 P.M. Sanitation B 2–5 P.M. Industrial Hygiene B 2–5 P.M. Bacteriology 34 2–5 P.M. (February 24)
Wednesday	Ecology A 9–10 A.M. Public Health Practice A 10–11 A.M. Epidemiology A (Laboratory) 11 A.M.–12.30 P.M. Industrial Hygiene A 2–4 P.M. Public Speaking 2–4 P.M.	Ecology A 9–10 A.M. Public Health Practice A 10–11 A.M. Epidemiology A (Laboratory) 11 A.M.–12.30 P.M. Industrial Hygiene A 2–4 P.M. Public Speaking 2–4 P.M.

TABULAR VIEW

	FIFTH MONTH (*cont.*) (*January 26–February 21*)	SIXTH MONTH (*cont.*) (*February 23–March 21*)
Thursday	Public Health Practice B 9–11 A.M. Child Health C 9 A.M.–5 P.M. Epidemiology B 9–11 A.M. Vital Statistics A2 11 A.M.–12.30 P.M. Parasitology A 2.30–5 P.M. Sanitation B 2.30–5 P.M. Industrial Hygiene B 2.30–5 P.M. Bacteriology 34 2.30–5 P.M. (February 5, 12, 19)	Public Health Practice B 9–11 A.M. Child Health C 9 A.M.–5 P.M. Epidemiology B 9–11 A.M. Vital Statistics A2 11 A.M.–12.30 P.M. Parasitology A 2.30–5 P.M. Sanitation B 2.30–5 P.M. Industrial Hygiene B 2.30–5 P.M. Bacteriology 34 2.30–5 P.M. (February 26)
Friday	Communicable Diseases A 9–10 A.M. Public Health Practice A 10–11 A.M. Epidemiology A 11 A.M.–12 M. Industrial Hygiene A 2–4 P.M. Communicable Diseases A 3–5 P.M.	Communicable Diseases A 9–10 A.M. Public Health Practice A 10–11 A.M. Epidemiology A 11 A.M.–12 M. Industrial Hygiene A 2–4 P.M. Communicable Diseases A 3–5 P.M.
Saturday	Epidemiology A (Laboratory) 9–11 A.M. Vital Statistics A2 11 A.M.–12.30 P.M.	Epidemiology A (Laboratory) 9–11 A.M. Vital Statistics A2 11 A.M.–12.30 P.M.

TABULAR VIEW

	SEVENTH MONTH (*March 23–April 25*) Recess March 29–April 5	EIGHTH MONTH (*April 27–May 30*) Examination Week May 25–30
Monday	Ecology A 9–10 A.M. Public Health Practice A 10–11 A.M. Epidemiology A 11 A.M.–12 M. Industrial Hygiene A 2–4 P.M. Public Speaking 2–4 P.M. Child Health C 2–5 P.M.	Ecology A 9–10 A.M. Public Health Practice A 10–11 A.M. Epidemiology A 11 A.M.–12 M. Applied Immunology 33A 2–5 P.M. Physician and the Community 2–3 P.M. Child Health C 2–5 P.M.
Tuesday	Communicable Diseases A 9–10 A.M. Vital Statistics A2 10 A.M.–12.30 P.M. Parasitology A 2–5 P.M. Sanitation B 2–5 P.M. Industrial Hygiene B 2–5 P.M.	Vital Statistics A2 9 A.M.–12.30 P.M. Public Health Practice B 2–5 P.M. Epidemiology B 2–5 P.M.
Wednesday	Ecology A 9–10 A.M. Public Health Practice A 10–11 A.M. Epidemiology A (Laboratory) 11 A.M.–12.30 P.M. Industrial Hygiene A 2–4 P.M. Public Speaking 2–4 P.M.	Ecology A 9–10 A.M. Public Health Practice A 10–11 A.M. Epidemiology A (Laboratory) 11 A.M.–12.30 P.M. Applied Immunology 33A 2–5 P.M. Physician and the Community 2–3 P.M.

TABULAR VIEW

	SEVENTH MONTH (*cont.*) (*March 23–April 25*) Recess March 29–April 5	EIGHTH MONTH (*cont.*) (*April 27–May 30*) Examination Week May 25–30
Thursday	Public Health Practice B 9–11 A.M. Child Health C 9 A.M.–5 P.M. Epidemiology B 9–11 A.M. Vital Statistics A2 11 A.M.–12.30 P.M. Parasitology A 2.30–5 P.M. Sanitation B 2.30–5 P.M. Industrial Hygiene B 2.30–5 P.M.	All Day Child Health C Public Health Practice B Epidemiology B
Friday	Communicable Diseases A 9–10 A.M. Public Health Practice A 10–11 A.M. Epidemiology A 11 A.M.–12 M. Industrial Hygiene A 2–4 P.M. Communicable Diseases A 3–5 P.M.	Public Health Practice A 10–11 A.M. Epidemiology A 11 A.M.–12 M. Applied Immunology 33 A 2–5 P.M. Physician and the Community 2–3 P.M.
Saturday	Epidemiology A (Laboratory) 9–11 A.M. Vital Statistics A2 11 A.M.–12.30 P.M.	Epidemiology A (Laboratory) 9–11 A.M. Vital Statistics A2 11 A.M.–12.30 P.M.